

# **EXHIBIT A**

UNITED STATES DISTRICT COURT  
WESTERN DISTRICT OF WISCONSIN

This Document Relates to:

Boyer v. Weyerhaeuser Company, et al.  
Masephol v. Weyerhaeuser Company, et al.  
Pecher v. Weyerhaeuser Company, et al.  
Sydow v. Weyerhaeuser Company, et al.

CASE NO. 14-cv-286  
CASE NO. 14-cv-186  
CASE NO. 14-cv-147  
CASE NO. 14-cv-219

DECLARATION OF JAMES S. JOHNSON PhD, CIH, QEP  
IN REBUTTAL TO THE SECOND WEBER AFFIDAVIT

I, JAMES S. JOHNSON PhD, CIH, QEP, declare as follows:

1. My background, education, work history and qualifications have been set forth in earlier declarations in this case.

2. I have been asked to address the Second Affidavit of Robert Webber dated September 17, 2015. All paragraph references below are to the Second Weber Affidavit.

3. Mr. Weber's inferred conclusion noted in paragraph 3c thereof is that increased pressure drop does not increase face seal leakage. I disagree. The Janssen/Weber article he coauthored (Exhibit A thereto) was narrowly designed to demonstrate what is a given: i.e., respirators that fit well do not show significant face seal leakage with increased pressure drop. This Janssen/Weber study was a follow on to an earlier Nelson Colton study that demonstrated an increase in facial leak rate was observed with increasing breathing resistance during routine use of air purifying half mask respirators. The Nelson Colton study differed from the Janssen/Weber study (exhibit A) by selecting experienced respirator users but did not first pre-screen them for acceptable respirator fit which quite expectedly produced different results; increased breathing resistance can cause an increase in face seal leakage by measuring the effect of filter loading on air flow resistance of used HEPA filters collected from a battery manufacturing plant. Unfortunately the Janssen/Weber study did not follow the experimental

design of the Nelson/Colton study but changed it, thus resulting in a conclusion that is quite obvious.

4. Another important point to make is neither study was on the 3M 8710 respirator. Rather both studies tested a completely different type of respirator. Specifically, both Nelson/Colton and Janssen/Weber (exhibit A to Weber's Second Affidavit) evaluated half mask respirators which had flexible elastomeric sealing surfaces. This is completely different from the 3M 8710 respirator facial sealing surface which is made from the rigid support material and filter media heat sealed together which makes it more susceptible to facial leakage.

5. In paragraph 4 Mr. Weber comments very narrowly on Plaintiffs Exhibit 25, which was an internal 3M memo dated June 24, 1975. 3M internally reported in this memo that the 3M 8710 received a protection factor of 3, the Wilson 1400 of 10 and the newly designed 8710H of 8. This information demonstrates that the as of June 1975 the 3M 8710 respirator was performing poorly in laboratory tests on people. Weber tries to downplay the statement in Exhibit 25 that "This compares to about a 3 on the current #8710" and comparing this low protection factor of the 8710 to the "protection factor of nearly 10" for the Wilson 1400 Respirator. Weber attempts to downplay this admission by 3M that its 8710 had a protection factor of "about a 3" by stating: "the lab study ... used sodium chloride to measure ... leakage." However, no documentation is provided to support this assertion of using sodium chloride. The major part of Exhibit 25 is a comparison of NIOSH approval parameters of the 3M 8710 to its competitor the Wilson Model 1400. Clearly as noted in Exhibit 25, the Wilson 1400 respirator is a formidable competitor that meets the initial and final pressure requirements of the silica dust test that the 3M 8710 respirator couldn't meet. Exhibit 25 also comments that the proposed #8710H (which was under development) would equal the current Wilson 1400 in silica dust test

performance. However, 3M 8710H was not able to achieve this performance. The 8710H was never approved by NIOSH and never sold.

6. Mr. Weber notes in paragraph 5 that numerous workplace studies have been done on the 3M 8710 respirator but only provides one example (the 1977 Shenango foundry study) that was done in the 1970s, ie, the time frame relevant to these plaintiff cases. No documentation is provided on this 1977 Shenango study, neither the actual study nor even excerpts of the data results are provided. Moreover, I have not been able to find any published report of this 1977 Shenango study to properly evaluate or comment on it. The other studies noted by Weber are identified as done in 1984 which would have tested a different 3M 8710 respirator containing the Omega web. Thus the studies in the 1980s are irrelevant to the 8710 respirator that was sold in the 1970s and thus worn by the plaintiffs herein which did not have an Omega web. Finally, as best as I can determine none of these studies mentioned in paragraphs 5 and 6 were peer-reviewed and none were conducted by NIOSH or another Governmental agency.

7. In his paragraph 6 Mr. Weber focuses on workplace protection factor studies involving the 3M 8710 respirator that OSHA used to set the APF for half mask respirators. This argument is a red herring. NIOSH is the agency that is charged with certifying respirators, including the 3M 8710 in the 1970s, not OSHA. Mr. Weber doesn't address (1) the regulatory requirements of NIOSH which are totally separate from OSHA and (2) the regulations NIOSH follows to approve respirators like the 3M 8710 respirator. The NIOSH requirements are promulgated to assure that respirator manufacturers like 3M consistently produce an approved respirator that meets these respirator performance standards. At issue in these cases are 3M's manufacture of the 3M 8710 respirator that clearly didn't meet the required NIOSH certification requirements of inhalation and exhalation pressure drop due to moisture condensation and the

related performance problems these defects created. I am not aware of any procedure or process that permits NIOSH requirements to be violated or ignored based on OSHA regulatory actions.

8. In paragraph 7, Weber recognizes as I noted in my Declaration dated August 31, 2015 that the 3M 8710 respirator was designated by NIOSH as a disposable (single-use) respirator in a larger category of half mask respirators. What he fails to recognize is: in 30 CFR Part 11.140-5, this single-use respirator is identified as a *separate type* of respirator with its *own set* of performance test requirements because of the difference in design as compared to the traditional half mask respirator. These differences in design need to be taken into consideration when comparisons and comments are made on these two types of respirators that should not be combined without careful consideration of their differences.

Pursuant to 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is correct.

DATED: 10/12/15.

Respectfully submitted,



JAMES S. JOHNSON PhD, CIH, QEP